

IN THE CLAIMS

Pending claims 1-57 are, as follows:

1 1. (Original) A method for controlling power consumption in a tilt correcting coil of a
2 monitor connected to a computer, said method comprising the steps of:
3 determining whether synchronization signals are received by said monitor from said computer;
4 operating said monitor in an on-state mode of a power supply mode of a display power
5 management system (DPMS) when it is determined that said synchronization signals are received by said
6 monitor;
7 providing a tilt correcting pulse width modulated signal to said tilt correcting coil when operating
8 said monitor in said on-state mode;
9 operating said monitor in one of a suspend mode, a standby mode and a power-off mode of said
10 power supply mode when it is determined that said synchronization signals are not received by said
11 monitor; and
12 preventing said tilt correcting pulse width modulated signal from being provided to said tilt
13 correcting coil when operating said monitor in said one of said suspend, standby and power-off modes.

1 2. (Original) The method as set forth in claim 1, said step of determining whether
2 synchronization signals are received by said monitor from said computer comprising the steps of:
3 determining whether a horizontal synchronization signal is received by said monitor; and then
4 determining whether a vertical synchronization signal is received by said monitor.

1 3. (Original) The method as set forth in claim 2, further comprising the steps of:
2 operating in said on-state mode when it is determined that both said horizontal and vertical
3 synchronization signals are received by said monitor;
4 operating in said suspend mode when it is determined that said horizontal synchronization signal
5 is received by said monitor and it is determined that said vertical synchronization signal is not received
6 by said monitor;
7 operating in said standby mode when it is determined that said horizontal synchronization signal
8 is not received by said monitor and it is determined that said vertical synchronization signal is received
9 by said monitor; and
10 operating in said power-off mode when it is determined that said horizontal synchronization signal
11 is not received by said monitor and it is determined that said vertical synchronization signal is not received
12 by said monitor.

1 4. (Original) A method for controlling power consumption in a tilt correcting coil of a
2 monitor connected to a computer, said monitor being operable in an on-state mode, a suspend mode
3 and a power-off mode of a power supply mode of a display power management system (DPMS), said
4 method comprising the steps of:

5 determining whether horizontal and vertical synchronization signals are received by said
6 monitor from said computer;

7 operating said monitor in said on-state mode when it is determined that both of said
8 horizontal and vertical synchronization signals are received by said monitor;

9 providing a tilt correcting pulse width modulated signal to said tilt correcting coil when
10 operating said monitor in said on-state mode;

11 operating said monitor in one of said suspend and power-off modes when it is determined
12 that at least one of said horizontal and vertical synchronization signals is not received by said
13 monitor; and

14 preventing said tilt correcting pulse width modulated signal from being provided to said tilt
15 correcting coil when operating said monitor in said one of said suspend and power-off modes.

1 5. (Original) The method as set forth in claim 4, further comprising the steps of:

2 operating in said suspend mode when it is determined that said horizontal synchronization
3 signal is received by said monitor and it is determined that said vertical synchronization signal is not
4 received by said monitor;

5 operating in a standby mode when it is determined that said horizontal synchronization signal
6 is not received by said monitor and it is determined that said vertical synchronization signal is
7 received by said monitor; and

8 operating in said power-off mode when it is determined that said horizontal synchronization
9 signal is not received by said monitor and it is determined that said vertical synchronization signal
10 is not received by said monitor.

1 6. (Original) An apparatus for controlling power consumption in a tilt correcting coil of a
2 monitor connected to a computer, said monitor being operable in any one of an on-state mode, a

3 suspend mode, a standby mode and a power-off mode of a power supply mode of a display power
4 management system (DPMS), said apparatus comprising:

5 a microcomputer in said monitor for receiving horizontal and vertical synchronizing signals
6 output from said computer;

7 an integrator for receiving and converting a tilt correcting pulse width modulated signal
8 output from said microcomputer into a direct current voltage signal;

9 a tilt correcting signal output circuit for outputting an amplified voltage signal by amplifying
10 the direct current voltage signal output from said integrator, said amplified voltage signal being
11 applied to said tilt correcting coil.

1 7. (Original) The apparatus as set forth in claim 6, said microcomputer outputting said tilt
2 correcting pulse width modulated signal when both said of horizontal and vertical synchronizing signals
3 are output from said computer.

1 8. (Previously Amended) The apparatus as set forth in claim 6, said microcomputer
2 outputting a signal having a constant high logic level, when either one of said [of] horizontal and
3 vertical synchronizing signals are not output from said computer, for preventing said tilt correcting
4 coil from consuming power.

5 9. (Previously Amended) The apparatus as set forth in claim 6, wherein said microcomputer
6 determines said monitor is to operate in said on-state mode when both of said [of] horizontal and

7 vertical synchronizing signals are output from said computer, and determines said monitor is to
8 operate in one of said suspend, standby and power-off modes when at least one of said [of]
9 horizontal and vertical synchronizing signals is not output from said computer;

10 said microcomputer outputting said tilt correcting pulse width modulated signal, when said
11 monitor is determined to be operating in said on-state mode; and

12 said microcomputer outputting a signal having a constant high logic level, when said monitor
13 is determined to be operating in one of said suspend, standby and power-off modes, for preventing
14 said tilt correcting coil from consuming power.

1 10. (Original) The apparatus as set forth in claim 9, wherein said integrator outputs a direct
2 current voltage signal having a high logic level when said microcomputer outputs said signal having a
3 constant high logic level, and said tilt correcting signal output circuit outputs an amplified voltage signal
4 having a constant low logic level in response to said direct current voltage signal having a high logic level.

1 11: (Previously Amended) The apparatus as set forth in claim 6, further comprising
2 said integrator comprising:

3 a first resistor connected between a first node and said microcomputer, and a
4 capacitor connected between said first node and a ground terminal;

5 said tilt correcting signal output circuit comprising:

6 a first amplifier having a negative input terminal, a positive input terminal and an
7 output terminal;

8 a second resistor connected between said first node and said negative input terminal
9 of said first amplifier;

10 a dividing circuit connected between a power source and said ground terminal for
11 providing a divided voltage signal to said positive input terminal of said first amplifier;

12 a feedback resistor connected between said negative input terminal and said output
13 terminal of said first amplifier;

14 a second amplifier having a negative input terminal, a positive input terminal and an
15 output terminal, said [negative] positive input terminal of said second amplifier being
16 connected to said output terminal of said first amplifier;

17 said output terminal of said second amplifier being connected to a first terminal of
18 said tilt correcting coil;

19 a second capacitor connected between said first terminal of said tilt correcting coil
20 and a second terminal of said tilt correcting coil;

21 a grounding resistor connected between said second terminal of said tilt correcting
22 coil and said ground terminal; and

23 a second feedback resistor connected between said second terminal of said tilt
24 correcting coil and said negative input terminal of said second amplifier.

1 12. (Previously Amended) The apparatus as set forth in claim 6, further comprising
2 a keyboard connected to said microcomputer, said microcomputer setting a tilt correcting
3 value for images on a screen of said monitor in accordance with key signals output from said

4 keyboard and outputting said tilt correcting pulse width modulated [(PWM) signals] signal in
5 accordance [to] with said tilt correcting value.

1 13. A method of controlling power consumption in a tilt correcting coil of a monitor
2 including a normal operating mode and a power saving operating mode, comprising the steps of:
3 enabling said tilt correcting coil during said normal operating mode of said monitor; and
4 disabling said tilt correcting coil during said power saving operating mode of said monitor.

1 14: The method of controlling power consumption in accordance with claim 13, further
2 comprising the step of:
3 determining whether a horizontal synchronization signal and a vertical synchronization signal
4 are present.

1 15. The method of controlling power consumption in accordance with claim 14, further
2 comprising the steps of:
3 providing a tilt correcting signal to said tilt correcting coil, said tilt correcting signal
4 including an active state and an inactive state; and
5 said step of enabling said tilt correcting coil comprising:
6 setting said tilt correcting signal in said active state when both of said horizontal
7 synchronization signal and said vertical synchronization signal are present; and
8 said step of disabling said tilt correcting coil comprising:

9 setting said tilt correcting signal in said inactive state when any of said horizontal
10 synchronization signal and said vertical synchronization signal is not present.

1 16. The method of controlling power consumption in accordance with claim 14, further
2 comprised of said tilt correcting signal comprising:
3 a tilt correcting pulse width modulated signal.

1 17. The method of controlling power consumption in accordance with claim 14, further
2 comprised of:
3 said step of enabling said tilt correcting coil comprising:
4 providing a tilt correcting signal to said tilt correcting coil when both of said horizontal
5 synchronization signal and said vertical synchronization signal are present; and
6 said step of disabling said tilt correcting coil comprising:
7 withholding said tilt correcting signal from being supplied to said tilt correcting coil when
8 any of said horizontal synchronization signal and said vertical synchronization signal is not present.

1 18. The method of controlling power consumption in accordance with claim 17, further
2 comprised of said tilt correcting signal comprising:
3 a tilt correcting pulse width modulated signal.

1 19. The method of controlling power consumption in accordance with claim 14, further

2 comprised of said power saving operating mode comprising at least one of:

3 a suspend mode, a standby mode and a power-off mode each respectively corresponding to
4 a power supply mode of a display power management system (DPMS) standard.

1 20. An apparatus for controlling power consumption in a tilt correcting coil of a monitor
2 including a normal operating mode and a power saving operating mode, comprising:

3 a controller for enabling said tilt correcting coil during said normal operating mode of said
4 monitor, and said controller for disabling said tilt correcting coil during said power saving operating
5 mode of said monitor.

1 21. The apparatus for controlling power consumption according to claim 20, further
2 comprised of:

3 said controller for determining whether a horizontal synchronization signal and a vertical
4 synchronization signal are present.

1 22. The apparatus for controlling power consumption according to claim 21, further
2 comprised of:

3 said controller for providing a tilt correcting signal to said tilt correcting coil, said tilt
4 correcting signal including an active state and an inactive state, and said controller for setting said
5 tilt correcting signal in said active state when both of said horizontal synchronization signal and said
6 vertical synchronization signal are present, and said controller for setting said tilt correcting signal

7 in said inactive state when any of said horizontal synchronization signal and said vertical
8 synchronization signal is not present.

1 23. The apparatus for controlling power consumption according to claim 22, further
2 comprised of said tilt correcting signal comprising:

3 a tilt correcting pulse width modulated signal.

1 24. The apparatus for controlling power consumption according to claim 21, further
2 comprised of:

3 said controller for providing a tilt correcting signal to said tilt correcting coil when both of
4 said horizontal synchronization signal and said vertical synchronization signal are present, and said
5 controller for withholding said tilt correcting signal from being supplied to said tilt correcting coil
6 when any of said horizontal synchronization signal and said vertical synchronization signal is not
7 present.

1 25. The apparatus for controlling power consumption according to claim 24, further
2 comprised of said tilt correcting signal comprising:

3 a tilt correcting pulse width modulated signal.

1 26. The apparatus for controlling power consumption according to claim 21, further
2 comprised of said power saving operating mode comprising:

3 a suspend mode, a standby mode and a power-off mode each respectively corresponding to
4 a power supply mode of a display power management system (DPMS) standard.

1 27. A computer readable storage medium including a stored set of instructions for
2 implementing a method of controlling power consumption in a tilt correcting coil of a monitor
3 including a normal operating mode and a power saving operating mode, said stored set of
4 instructions comprising one or more instructions for:

5 enabling said tilt correcting coil during said normal operating mode of said monitor; and
6 disabling tilt correcting coil during said power saving operating mode of said monitor.

1 28. The computer readable storage medium according to claim 27, further comprised of said
2 stored set of instructions further comprising one or more instructions for:

3 determining whether a horizontal synchronization signal and a vertical synchronization signal
4 are present.

1 29. The computer readable storage medium according to claim 28, further comprised of said
2 stored set of instructions further comprising one or more instructions for:

3 providing a tilt correcting signal to said tilt correcting coil, said tilt correcting signal
4 including an active state and an inactive state; and

5 said one or more instructions for enabling said tilt correcting coil comprising one or more
6 instructions for:

7 setting said tilt correcting signal in said active state when both of said horizontal
8 synchronization signal and said vertical synchronization signal are present; and
9 said one or more instructions for disabling said tilt correcting coil comprising one or more
10 instructions for:

11 setting said tilt correcting signal in said inactive state when any of said horizontal
12 synchronization signal and said vertical synchronization signal is not present.

1 30. The computer readable storage medium according to claim 29, further comprised of said
2 one or more instructions for providing said tilt correcting signal comprising one or more instructions
3 for:

4 providing a tilt correcting pulse width modulated signal.

1 31. The computer readable storage medium according to claim 28, further comprised of:
2 said one or more instructions for enabling said tilt correcting coil comprising one or more
3 instructions for:

4 providing a tilt correcting signal to said tilt correcting coil when both of said horizontal
5 synchronization signal and said vertical synchronization signal are present; and

6 said one or more instructions for disabling said tilt correcting coil comprising one or more
7 instructions for:

8 withholding said tilt correcting signal from being supplied to said tilt correcting coil when
9 any of said horizontal synchronization signal and said vertical synchronization signal is not present.

1 32. The computer readable storage medium according to claim 31, further comprised of said
2 one or more instructions for providing a tilt correcting signal comprising one or more instructions
3 for:

4 providing a tilt correcting pulse width modulated signal.

1 33. The computer readable storage medium according to claim 31, further comprised of said
2 power saving operating mode comprising at least one of:

3 a suspend mode, a standby mode and a power-off mode each respectively corresponding to
4 a power supply mode of a display power management system (DPMS) standard.

1 34. A method for controlling power consumption in a tilt correcting coil of a monitor, said
2 method comprising the steps of:

3 providing a tilt correcting signal for correcting a tilt of an image to said tilt correcting coil
4 of said monitor when operating said monitor in an on-state mode; and

5 reducing power consumption of said tilt correcting coil of said monitor by withholding said
6 tilt correcting signal from being used by said tilt correcting coil of said monitor when operating said
7 monitor in at least one of a suspend mode, a standby mode, and a power-off mode.

1 35. The method as set forth in claim 34, further comprised of said on-state mode, said
2 suspend mode, said standby mode and said power-off mode each respectively corresponding to a

3 power supply mode of a display power management system (DPMS).

1 36. The method as set forth in claim 34, further comprised of providing said tilt correcting
2 signal to correspond to a tilt correcting pulse width modulated signal.

1 37. A method for controlling power consumption in a tilt correcting coil of a monitor, said
2 method comprising the steps of:

3 providing a tilt correcting signal for correcting a tilt of an image to said tilt correcting coil
4 of said monitor when operating said monitor in a mode corresponding to normal power consumption
5 for said monitor; and

6 reducing power consumption of said tilt correcting coil of said monitor by withholding said
7 tilt correcting signal from being used by said tilt correcting coil of said monitor when operating said
8 monitor in a mode corresponding to reduced power consumption for said monitor.

1 38. The method as set forth in claim 37, further comprised of providing said tilt correcting
2 signal to correspond to a tilt correcting pulse width modulated signal.

1 39. A method for controlling power consumption in a tilt correcting coil of a monitor, said
2 method comprising the steps of:

3 providing a tilt correcting signal for correcting a tilt of an image to said tilt correcting coil
4 of said monitor when operating said monitor in an activity state corresponding to normal power

5 consumption for said monitor; and

6 withholding said tilt correcting signal from being used by said tilt correcting coil of said
7 monitor when operating said monitor in an activity state corresponding to reduced power
8 consumption for said monitor.

1 40. The method as set forth in claim 39, further comprised of providing said tilt correcting
2 signal to correspond to a tilt correcting pulse width modulated signal.

3 41. The method as set forth in claim 39, further comprised of said activity state
4 corresponding to normal power consumption for said monitor and said activity state corresponding
5 to reduced power consumption for said monitor each respectively corresponding to a power supply
6 mode of a display power management system (DPMS).

1 42. A method for controlling power consumption in a tilt correcting coil of a monitor, said
2 method comprising the steps of:

3 providing a tilt correcting signal for correcting a tilt of an image to said tilt correcting coil
4 of said monitor when both a horizontal synchronizing signal and a vertical synchronizing signal are
5 received by said monitor; and

6 withholding said tilt correcting signal from being used by said tilt correcting coil of said
7 monitor when any of said horizontal synchronizing signal and said vertical synchronizing signal is
8 not received by said monitor to reduce power consumption of said tilt correcting coil of said monitor.

1 43. The method as set forth in claim 42, further comprised of providing said tilt correcting
2 signal to correspond to a tilt correcting pulse width modulated signal.

1 44. A method for controlling power consumption in a tilt correcting coil of a monitor, said
2 method comprising the step of:

3 using a tilt correcting signal by said tilt correcting coil of said monitor for correcting a tilt of
4 an image only when both a horizontal synchronizing signal and a vertical synchronizing signal are
5 received by said monitor.

1 45. The method as set forth in claim 44, further comprised of providing said tilt correcting
2 signal to correspond to a tilt correcting pulse width modulated signal.

3 46. A method for controlling power consumption in a tilt correcting coil of a monitor, said
4 method comprising the step of:

5 preventing a tilt correcting signal from being used by said tilt correcting coil of said monitor
6 when any of a horizontal synchronizing signal and a vertical synchronizing signal is not received by
7 said monitor, said tilt correcting signal for correcting a tilt of an image.

1 47. A method for controlling power consumption in a tilt correcting coil of a monitor,
2 comprising the step of:

3 in absence of any of a horizontal synchronizing signal and a vertical synchronizing signal
4 being received by said monitor, withholding supplying of a tilt correcting signal to said tilt correcting
5 coil of said monitor, said tilt correcting signal for correcting a tilt of an image.

1 48. A method for controlling power consumption in a tilt correcting coil of a monitor, said
2 method comprising the step of:

3 enabling correcting a tilt of an image by said tilt correcting coil of said monitor by said tilt
4 correcting coil using a tilt correcting signal only when both a horizontal synchronizing signal and
5 a vertical synchronizing signal are received by said monitor.

1 49. An apparatus for controlling power consumption in a tilt correcting coil of a monitor,
2 said apparatus comprising:

3 a tilt correcting coil of said monitor for correcting a tilt of an image; and
4 tilt correcting signal circuitry for providing a tilt correcting signal for correcting said tilt of
5 said image to said tilt correcting coil of said monitor and for enabling correcting said tilt of said
6 image by enabling using said tilt correcting signal only when both a horizontal synchronizing signal
7 and a vertical synchronizing signal are received by said tilt correcting signal circuitry.

1 50. The apparatus as set forth in claim 49, further comprised of said tilt correcting signal
2 corresponding to a tilt correcting pulse width modulated signal.

1 51. An apparatus for controlling power consumption in a tilt correcting coil of a monitor,
2 said apparatus comprising:
3 a tilt correcting coil of a monitor for correcting a tilt of an image; and
4 tilt correcting signal circuitry for enabling correction of said tilt of said image by said tilt
5 correcting coil of said monitor using a tilt correcting signal when both a horizontal synchronizing
6 signal and a vertical synchronizing signal are received by said tilt correcting signal circuitry, and said
7 tilt correcting signal circuitry for preventing said tilt correcting signal from being used by said tilt
8 correcting coil of said monitor when any one of said horizontal synchronizing signal and said vertical
9 synchronizing signal is not received by said tilt correcting signal circuitry.

1 52. The apparatus as set forth in claim 51, further comprised of said tilt correcting signal
2 corresponding to a tilt correcting pulse width modulated signal.

1 53. A computer storage medium including a set of instructions implementing a method for
2 controlling power consumption in a tilt correcting coil of a monitor, said set of instructions
3 comprising one or more instructions for:
4 correcting a tilt of an image by said tilt correcting coil of said monitor using a tilt correcting
5 signal when both a horizontal synchronizing signal and a vertical synchronizing signal are received
6 by said monitor; and
7 preventing said tilt correcting signal from being used by said tilt correcting coil of said
8 monitor when any of said horizontal synchronizing signal and said vertical synchronizing signal is

9 not received by said monitor to reduce power consumption of said tilt correcting coil of said monitor.

1 54. The computer storage medium as set forth in claim 53, further comprised of said
2 computer storage medium being comprised by a microcomputer.

1 55. A computer storage medium including a set of instructions implementing a method for
2 controlling power consumption in a tilt correcting coil of a monitor, said set of instructions
3 comprising one or more instructions for:

4 enabling using a tilt correcting signal for correcting a tilt of an image by said tilt correcting
5 coil of said monitor only when both a horizontal synchronizing signal and a vertical synchronizing
6 signal are received by said monitor.

1 56. The computer storage medium as set forth in claim 55, further comprised of said set of
2 instructions comprising one of more instructions for:

3 providing said tilt correcting signal to correspond to a tilt correcting pulse width modulated
4 signal.

1 57. The computer storage medium as set forth in claim 55, further comprised of said
2 computer storage medium being comprised by a microcomputer.